Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-25. (Canceled)

26. (Currently Amended) A method for producing a transgenic tea plant, comprising (a) maintaining a tea explant in a medium that comprises at least one osmotic agent; (b) bombarding the explant with glycerol-free metal particles that are coated with a desired DNA and then placing the bombarded surface of the explant in direct contact with the medium; (c) determining the presence of the desired DNA in one or more cells of the explant; and (d) culturing an explant that comprises the desired DNA in one of its cells[[,]] into a plant, wherein the bombardment path of the gold particles and the position of the explant are aligned for maximum particle penetration, and wherein the plant that comprises the desired DNA in one of its cells is a transgenic tea plant.

27. (Previously Presented) The method of claim 26, wherein the tea explant is an explant from *Camellia sinensis*.

28. (Previously Presented) The method of claim 26, wherein the osmotic agent is at least one of sucrose, myoinositol, sorbitol, and mannitol.

29. (Previously Presented) The method of claim 28, wherein the concentration of the osmotic agent is about 0.25-0.75 M.

30. (Previously Presented) The method of claim 26, wherein the medium further comprises a vitamin that is thiamine-HCl, pyridoxine-HCl, or nicotinic acid.

31. (Previously Presented) The method of claim 26, wherein the tea explant is maintained on the medium from 2 to 8 hours.

32. (Previously Presented) The method of claim 26, wherein the medium is Murashige and Skoog medium.

33. (Currently Amended) The method of claim 26, wherein the step of bombarding the explant with glycerol-free metal particles is conducted ~~explant is~~ in a chamber that is appropriate for ~~receptive to~~ particle bombardment.

34. (Previously Presented) The method of claim 33, wherein the chamber is part of a biolistic transformation device.

35. (Previously Presented) The method of claim 34, wherein the device is a gas powered particle delivery system.

36. (Previously Presented) The method of claim 35, wherein the gas is helium.

37. (Previously Presented) The method of claim 36, wherein the device is the PDS-1000/He particle delivery system.

38. (Currently Amended) The method of claim 33, wherein the step of bombarding the explant with glycerol-free metal particles is conducted when the chamber is under a ~~there is a~~ vacuum ~~in the chamber~~.

39. (Previously Presented) The method of claim 38, wherein the pressure of the vacuum in the chamber is from about 22 to about 28 inches of mercury.

40. (Previously Presented) The method of claim 26, wherein the metal particles are gold particles.

41. (Previously Presented) The method of claim 40, wherein the diameter of each of the gold particles is from about 0.6 to about 1.6 μm.

42. (Previously Presented) The method of claim 26, wherein the metal particles are suspended in a glycerol-free solution that comprises about 0.5 to about 5 $\mu g/\mu l$ of the desired DNA.

43. (Previously Presented) The method of claim 42, wherein the solution further comprises calcium chloride and spermidine.

44. (Previously Presented) The method of claim 43, wherein the concentration of the calcium chloride is from about 1.5 to about 5.3 M.

45. (Previously Presented) The method of claim 43, wherein the concentration of the spermidine is from about 0.5 to about 2.0 M.

46. (Previously Presented) The method of claim 26, wherein the explant is a leaf, somatic embryo, zygotic embryo, or a callus.

47. (Previously Presented) The method of claim 26, wherein multiple explants are positioned in concentric circles and aligned so as to be in the path of the bombardment particles, thereby enhancing or achieving maximum particle penetration.

48. (Currently Amended) The method of claim 47, wherein the explants are in a particle delivery system comprising ~~comprises~~ (i) a gas-driven acceleration tube, (ii) a rupture disc, (iii) a macrocarrier, which holds the DNA-coated particles, and (iv) a stopping screen.

49. (Previously Presented) The method of claim 48, wherein any one of the distances between (i) the rupture disc and the macrocarrier, (ii) the macrocarrier and the stopping screen, and (iii) the stopping screen and the explant, can be adjusted.

50. (Previously Presented) The method of claim 49, wherein (i) the distance between the rupture disc and the macrocarrier is not more than about 1.3 cm, (ii) the distance between the macrocarrier and the stopping screen is about 1.6 cm, and (iii) the distance between the stopping screen and the explant is about 9 cm.

51. (Previously Presented) The method of claim 48, wherein the burst pressure of the gas released from the acceleration tube is about 1100 psi.

52. (Previously Presented) The method of claim 48, wherein the concentration of DNA coated onto the particles is about 1 $\mu g/\mu l$.

53. (Currently Amended) The method of claim 26, wherein, after the explants have been bombarded once and before the step of determining the presence of the desired DNA in one or more cells of the explant, the position of the explants is rotated by 180 degrees and then the explants are bombarded again.

54. (Previously Presented) The method of claim 26, wherein the step of culturing an explant that comprises the desired DNA in one of its cells into a plant, comprises (i) placing the bombarded surface of the explant in contact with the medium, (ii) leaving the

explants in the dark for two days at a temperature of about 23°C to about 27°C, (iii) transferring the explant to regeneration medium, and (iv) selecting a transformed explant that has been successfully transformed with the desired DNA to grow into a transgenic tea plant.